Vaccine coverage estimates for the school based tetanus, diphtheria and polio (Td/IPV, ‘school leaver booster’) adolescent vaccination programme in England, to 31 August 2017

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The school leaver booster is the fifth dose of tetanus, diphtheria and polio (Td/IPV) vaccine in the routine immunisation schedule and completes the course, providing long-term protection against all three diseases [1-4]. Despite these antigens being offered to adolescents for decades, 2015/16 was the first pilot year of national vaccine coverage data collection for Td/IPV [5]. Previously annual Health and Social Care Information Centre (HSCIC, now NHS Digital) KC50 collections from primary care trusts (PCTs) had included number of doses of Td/IPV administered but did not contain reliable denominator data for all PCTs and so were unable to produce coverage estimates. The KC50 returns were suspended in 2012/13 [6]. This is the second vaccine coverage report for the Td/IPV schools based immunisation programme in England and presents updated data for school year 10 and new data for school year 9 in 2016/17.

Key points

- Coverage of the Td/IPV booster vaccine up to the end of August 2017 for those born 1 September 2001 to 31 August 2002 (Year 10 in 2016/17) was 81.7%.
- Coverage of the Td/IPV booster vaccine up to the end of August 2017 for those born 1 September 2002 to 31 August 2003 (Year 9 in 2016/17) evaluated from school based programmes was 83.0%, similar to coverage achieved in year 9 in 2015/16 (83.5%).
Methods

Data were collected at school level, aggregated by LA and manually entered on to the ImmForm* website.

The denominator was the number of adolescents in schools in each LA in each cohort at the end of the academic year 2016/17 and all adolescents in each cohort resident in the LA not linked to any school (table 1). The numerator was the number of adolescents in each cohort who had received one dose of Td/IPV vaccine by 31 August 2017.

Table 1. Td/IPV routine vaccine cohorts 2016/17

<table>
<thead>
<tr>
<th>School year in 2016/17</th>
<th>Age in 20016/17</th>
<th>Dates of birth</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>14-15 years old</td>
<td>1 Sep 2001 – 31 Aug 2002</td>
</tr>
<tr>
<td>9</td>
<td>13-14 years old</td>
<td>1 Sep 2001 – 31 Aug 2003</td>
</tr>
</tbody>
</table>

Full details of the data collection process and definitions can be found in the user guide MenACWY and Td/IPV Vaccine Coverage Collections 2016 to 2017, Local Authority Annual Survey, Reference guide for NHS England local teams on submitting annual vaccine coverage data on ImmForm

Participation and data quality

Caveats describing participation and data quality issues are included within the data tables associated with this report.

*ImmForm is the system used by Public Health England to record vaccine coverage data for some immunisation programmes and to provide vaccine ordering facilities for the NHS

Results

- 120/152 (79%) LAs offered routine Td/IPV vaccination in Year 9 in 2016/17 (119 in schools, Isles of Scilly LA in GP practices). Twenty-nine of these 120 LAs offered to both Year 9 and 10 as a means of transitioning to Year 9 only for 2017/18. Devon LA offered Td/IPV to all Year 10 in 2016/17, and to Year 9 boys only**. Twenty-five LAs offered routine Td/IPV in Year 10 (and not Year 9) in schools in 2016/17. Four LAs offered Td/IPV through GP (Portsmouth, Southampton, Isle of Wight) and mixed school and GP programmes (Hampshire) from Year 9 and were unable to provide data. Three further LAs that ran GP programmes (Bristol, South Gloucestershire and Somerset) were excluded from the main data table because there are caveats associated with their data.

- The 25 LAs not offering routine vaccination in 2016/17 to Year 9 students will offer it to Year 10 in 2017/18.

- Td/IPV coverage in Year 10 in 2016/17 (combined Year 9 2015/16 and Year 10 2016/17 data), was 81.7%. This figure is based on data provided by 140 LAs and excludes eight LAs with GP/mixed programmes that were unable to provide reliable data, and four LAs that omitted to vaccinate this cohort.

- Coverage in Year 10 ranged from 44.0% (Greenwich LA) to 100% (Isles of Scilly LA). Of 140 LAs providing reliable data, 125 (89%) achieved coverage of 70% and above.

- Four LAs (Havering, Barking and Dagenham, Redbridge and Waltham Forest) omitted to vaccinate Year 10 in 2016/17 but plan to catch-up this missed cohort.

- Routine Td/IPV coverage in Year 9 in 2016/17 was 83.0%. This figure is based on data provided by 120 LAs and excludes seven LAs (all with mixed/GP programmes) that were unable to provide reliable data. This is similar to 83.5% coverage reported for Year 9 in 2015/16.

- Reported LA coverage in Year 9 ranged from 55.2%** in Greenwich LA to 100% (Isles of Scilly LA). Of 120 LAs providing reliable data, 112 (93%) achieved coverage of 70% and above.

**Year 9 coverage in Devon LA was 45.4% but only boys were offered MenACWY in 2016/17; girls will be offered MenACWY vaccine in 2017/18 when they are in Year 10
Discussion

These data for the second pilot year of this collection should be regarded as provisional for Year 9 as they will be evaluated again next year (2017/18) to provide more complete data. The high participation rate in this collection (data were submitted by 97% (148/152) of LAs), continues to be encouraging, with only those LAs offering either a GP or mixed school and GP delivered programme unable to make a return.

Coverage of the Td/IPV booster in England is in line with coverage reported in Scotland, Wales and Northern Ireland (see table of UK data associated with this report). As with other adolescent vaccination programmes delivered through schools in England, the highest coverage is achieved in the younger cohort (Year 9) [7]. Achieving similarly high coverage in older adolescents is a challenge across vaccine programmes. Td/IPV vaccine coverage reported for Year 9 and 10 is similar to MenACWY vaccine coverage reported for the same school years (Year 10 82.5%, Year 9 83.6%) [7].

It is encouraging to see that of the 25 LAs not offering Td/IPV in 2016/17 in Year 9, more than half indicated that they had started vaccinating Year 9 in 2017/18 or had plans to do so in the next couple of years, enabling the programme to gradually move to the recommended Year 9 delivery of Td/IPV nationally.

Collecting accurate data for this vaccine programme is challenging, particularly when attempting to provide follow-up estimates for cohorts over more than one academic year. Also, it was not possible for many LAs to include data on Td/IPV vaccine received in general practice. Consequently, some LA 2016/17 data presented for cohorts who were first eligible for Td/IPV in 2015/16 reflect updated coverage figures which include vaccinations given in both school and GP settings, for others only school delivered vaccinations in both academic years are included but for many other LAs data have been carried over from 2015/16 without changes to either the denominator or numerator.

The figures presented here overestimate coverage nationally because they exclude missed cohorts and those running GP programmes which likely have lower coverage.

This survey will be repeated in September 2018 to collect vaccine coverage data for Td/IPV delivered to Years 9 and 10 in 2017/18.

References


4. PHE (2017). The complete routine immunisation schedule from autumn 2017 (born on or after 1 August 2017) 


7. PHE (January 2018). Vaccine coverage estimates for the school based meningococcal ACWY (MenACWY) adolescent vaccination programme in England, to 31 August 2017. HPR 12(3).
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